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Tropical American Plants, III

The notes which follow are mostly those made during my study of the material contained in the United States National Herbarium, in the Gray and Arnold Arboretum herbaria, in the herbarium of the New York Botanical Garden and in the collection of Chicago Natural History Museum, in the course of the preparation of the forthcoming part of the *Flora of Guatemala*. Special thanks are extended to those in charge of these herbaria for permission to study the material which they contain. My study was assisted by a grant from the National Science Foundation.

The commentary on the genus *Heliocereus* was prepared by Myron Kimnach, who has a monograph of that genus in preparation.

VITACEAE

Cissus serrulatifolia L. Wms., sp. nov.

Frutex scandens, ramis glabris vel paulo pubescentibus; folia longo-petiolata, trifoliolata; lamina serrulata subtus puberula; inflorescentia cymosa vel cymoso-subumbellata, multiflora, puberulenta; calyx rotata vel rotato-lobata; corolla calyptriformis, 4-lobata; fructus globosus vel globoso-ovoideus.

Scandent woody vines. Stems to 4 mm. or more in diameter, glabrous with age but the new growths densely puberulent; nodes 2-4 cm. apart on the stem, usually enlarged, each with a leaf and an opposed tendril or with a leaf and an opposed inflorescence or sometimes two inflorescences above; leaves trifoliolate, long-petiolate, the petioles and petiolules and the nerves of the lower surface of the leaflets puberulent, otherwise glabrous, the nerves prominent below, the lateral nerves 10-18, the lower surface of the leaflets lighter in color; petioles 3-7 cm. long; the 2 lateral leaflets asymmetrical, ovate-lanceolate, acuminate, sharply denticulate, the blade (on mature leaves) 5-8 cm. long and 2-3 cm. broad, the petiolule about 5 mm. long; the terminal leaflet symmetrical, ovate-lanceolate, acuminate, sharply denticulate, the blade 7-10 cm. long and 3.5-4 cm. broad, the petiolule 1-1.2 cm. long; tendrils slender, about as long as the opposed leaf; inflorescence cymose or cymose-subumbellate, many-flowered, 5-10 cm. long, shorter than the leaves, leaf opposed, in the axil of a leaf or terminal, densely puberulent or subglandular-puberulent; flowers pale greenish white, small, the pedicels 3-7 mm. long, puberulent; calyx rotate or rotate-lobate, about 1 mm. long, puberulent; corolla calyptriform, the 4 lobes connate and falling together, about 1.2-1.5 mm.

long; ovary subtended at the base by a glandular disc; fruit (immature) prominently marked by numerous glands, globose or globose-ovoid.

Costa Rica: Flowers pale greenish, vine woody; road to Golfito Dairy pastures, province of Puntarenas, near sea level, November 11, 1952, *Allen* 6625 (type in Chicago Natural History Museum; duplicate in herbarium of Escuela Agrícola Panamericana).

The species differs from the other trifoliolate species of Central America in its serrulate leaflets, the long petiolule of the terminal leaflet and the compact inflorescence.

DILLENACEAE

Tetracera jamaicensis DC. Syst. Nat. 1: 399. 1818. *T. belizensis* Lundell, Contr. Univ. Mich. Herb. 6: 44. 1941; L. Wms. Fieldiana: Bot. 29: 351. 1961.

Since publication of the note cited above I have found that *Tetracera belizensis* is synonymous with *T. jamaicensis*. The species, although rather widely distributed, is not well represented in American herbaria. I have seen the following specimens:

Jamaica: *Harris & Britton* 10577 (F); *Procter* 19781 (A).

British Honduras: *Gentle* 2794 (G), 3941 (F).

Guatemala: *Steyermark* 41787 (F).

Honduras: *Standley* 55540 (F).

Nicaragua: *Oersted* 344 (F).

Panama: *Cooper* 204 (F); *Shattuck* 241 (F); *von Wedel* 1664 (F, G).

FLACOURTIACEAE

Neosprucea grandiflora (Spruce) Sleumer, Notizbl. Bot. Gart. Berl. 14: 47. 1938. *Banara grandiflora* Spruce ex Benth. Journ. Linn. Soc. suppl. 5: 93. 1861. *Hasseltia grandiflora* Sleumer, l.c. 11: 960. 1934. *Spruceanthus grandiflorus* Sleumer, l.c. 13: 363. 1936.

Panama: Flowers light green; El Valle de Antón and vicinity, provincia de Coclé, alt. 500–700 m., July 23–27, 1935, *Seibert* 465 (M, F).

The genus is new to North America. The species is presently known from Panama, Colombia, Peru and Brazil.

CACTACEAE

The treatment of the cacti in the forthcoming issue of the *Flora of Guatemala* will follow that of Britton and Rose in *The Cactaceae*

in most cases. This is done because their work is well known and gives almost complete coverage of the species of cacti known to occur in Guatemala. The time required to revise the family to bring the generic concept more or less into conformity with the other parts of the *Flora* is greater than can be justified in the preparation of a flora of a relatively limited geographical area and one where the family is not of major importance.

The concept of genera in the Cactaceae has been the subject of considerable controversy during the past 100 years, or even longer. In *Genera Plantarum* (1867), Bentham and Hooker accounted for the family with 13 genera. In *The Cactaceae* (1919-23), Britton and Rose divided the family into 124 genera, many of these of their own creation. Just a few years later, Vaupel, in the second edition of the *Pflanzenfamilien*, brought the number of genera down to 26. Under *Cereus* Vaupel reduced to synonymy 39 of the cereoid "genera" proposed by Britton and Rose. Now the pendulum has swung again. Kurt Backeberg in his *Die Cactaceae* (1958-61) has accounted for 220 genera! Or perhaps "micromicrogenera"?

Many of the genera proposed or maintained in the work of Britton and Rose and that of Backeberg are based on characters so trivial that they would receive scant consideration in most plant families. There have been more than 140 new generic names proposed in the Cactaceae since Britton and Rose's work was finished in 1923. It remains for some competent systematist to give us a sane and taxonomically sound classification of the family.

Cephalocereus Maxonii Rose, Contr. U. S. Nat. Herb. 12: 417, t. 64. 1909. *Cereus Maxonii* Vaupel, Monatschr. Kakteenk. 23: 23. 1913. *Pilocereus Maxonii* Berger, Kakteen 345. 1929. *Pilosocereus Maxonii* Byles & Rowley, Cact. & Succ. Journ. Gr. Brit. 19: 3, 67. 1957.

This is one of the large cacti found on the low, dry and hot valleys extending back from the Gulf of Honduras. It is widely spread but not abundant in the Motagua Valley in Guatemala, often associated with *Lemaireocereus*. It is certainly this same species that is conspicuous in the Comayagua Valley and perhaps other coastal valleys in Honduras.

Backeberg (*Die Cactaceae* 4: 2426. 1960) places this species in a genus described in 1957, *Pilosocereus* Byles & Rowley, along with 59 other species. It seems hardly credible that there was not a valid

generic name proposed before 1957 for a genus of some 60 species of cereoid cacti.

EPIPHYLLUM

The treatment of the genus *Epiphyllum* in the *Flora of Guatemala* will be more conservative than most recent treatments or accounts of this genus. There occur in Guatemala ten species of this alliance which, in recent years, have been distributed among seven genera by various authors. These genera are: *Bonifazia* Standl. & Steyerm., *Chiapasiasia* Britt. & Rose, *Disocactus* Lindl., *Marniera* Backeb. (*nomen subnudum*), *Phyllocactus* Link, *Trochilocactus* Lindinger (*nomen nudum*), and *Epiphyllum* [Hermann] Haworth—the oldest name for species of this group. One small-flowered species which occurs in Guatemala and has been placed recently in *Disocactus* by Kimnach, seems to me to cause less “violence” in *Rhipsalis* than in *Epiphyllum*.

This more conservative treatment unfortunately requires two new combinations:

Epiphyllum Eichlamii (Weingart) L. Wms., comb. nov. *Phyllocactus Eichlamii* Weingart, Monatschr. Kakteenk. 21: 5. 1911. *Disocactus Eichlamii* Britt. & Rose, Contr. U. S. Nat. Herb. 16: 259, t. 79. 1913; Cactaceae 4: 203, f. 205. 1923; Kimnach & Hutchison, Cact. & Succ. Journ. Am. 29: 75, f. 45. 1957. *Trochilocactus Eichlamii* Lindinger, Beih. Bot. Centralbl. 61: 383. 1942.

The species is endemic in Guatemala.

Epiphyllum quezaltecum (Standl. & Steyerm.) L. Wms., comb. nov. *Bonifazia quezalteca* Standl. & Steyerm. Field Mus. Bot. 23: 66. 1944. *Disocactus quezaltecus* Kimnach, Cact. & Succ. Journ. Am. 31: 137, t. 1959.

This plant was considered by Mr. Standley, whose experience in Guatemala has been exceeded by that of no other botanist, to be one of the most attractive plants in all the country. The flowers, although small, are produced in great abundance, making the epiphyte conspicuous from some distance. The flowers are a lovely shade of pale reddish purple.

The species is endemic.

Epiphyllum macropterum (Lem.) Britt. & Rose, Cactaceae 4: 193, t. 17, f. 200. 1923. “*Marniera macroptera*” Backeberg, Die Cactaceae 2: 736. 1959.

This attractive cactus, which occurs from Guatemala southward perhaps throughout Central America, is the basis of the name *Marniera* proposed by Backeberg. In the *Cactus and Succulent Journal* (22: 153. 1950), where the name *Marniera* first appears with "validating Latin" and a diagnosis in English, it is described as "Plantae phyllocactoideae; floribus diurnis; ovario lanuginoso. Phyllocactoid plants with diurnal, little modified flowers and ovaries provided with long hairs." A basionym is given but no combination is made. In the same journal (23: 17. 1951) the following year the name "*M[arniera] macroptera* (Lem.) Backbg., comb. nov." appears, but without basionym. Fortunately the "new genus" has so little claim to recognition, either systematic or nomenclatorial, that nothing further need be done with it. The Latin and English descriptions, cited in full above, with the change of a word or two (or even without change) might well have been used to characterize others of the "genera" of Cactaceae proposed by Backeberg.

HELIOCEREUS

Contributed by MYRON KIMNACH¹

My account of this genus of Cactaceae for the *Flora of Guatemala* will be limited in scope and I wish to make some preceding comments here. A detailed revision of *Heliocereus* will appear when enough data have accumulated but for the present a preliminary evaluation of the species can be made, with emphasis on those of Guatemala.

The type species is *H. speciosus* (Cav.) Britt. & Rose, apparently restricted in range to the vicinity of Mexico City, although due to the difficulty of determining specimens of this genus some from distant areas often have been so identified. It is distinguished from the other species by the following combination of characters: More erect, thicker stems with longer, stouter spines, larger flowers with a spinier tube and larger, obtuse, red tepals with a purplish tinge.

H. Schrankii (Zucc.) Britt. & Rose occurs from Sinaloa to Oaxaca in Mexico. It is fairly distinct from *H. speciosus* in its thinner and less spiny stems, smaller flowers with a tube which is nearly spineless near the apex, and narrow, acute, red tepals without a purplish tinge. *H. elegantissimus* Britt. & Rose differs from this species only in that its style does not extend beyond the stamens; style length is variable in many cacti and *H. elegantissimus* should be regarded as a synonym of *H. Schrankii*.

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I have not seen material of *H. amecamensis* (Heese) Britt. & Rose, uncertainly recorded from central Mexico. This is the only white-flowered species of the genus and the apices of young stems lack the reddish coloration found in the other species; as a probable albino form it should be reduced under *H. speciosus* or *H. Schrankii*, but the available descriptions and figures are inadequate for determining its nearest ally.

H. cinnabarinus (Eichl.) Britt. & Rose, from Mexico (Chiapas), Guatemala and El Salvador, is distinct from *H. Schrankii* in its thinner stems and spines, its flower tube with spines equally long and numerous along its whole length, its gradually divergent perianth and its more obtuse tepals. The last species, *H. heterodoxus* Standl. & Steyerl., from Guatemala, differs in having flat stems instead of 3- to 5-angled ones, short tepals and obtuse upper bracts. I consider it a synonym of *H. cinnabarinus*, as discussed below.

Therefore three species can be recognized provisionally: *H. speciosus*, *H. Schrankii*, and *H. cinnabarinus*. A comparison shows them to be indistinct, intergrading and variable. Their morphological range can hardly be contained in one species, yet it is difficult to recognize more than one. A satisfactory division may be possible when a larger sampling of wild material has been studied. For the present I assume that these three species are at least equally distinct and that the only alternative to recognizing but one is to uphold all three.

There has been disagreement in determining the Guatemalan specimens; some have been referred to four species. Half are sterile and cannot be identified with certainty, for stem differences between the various species are slight. The stems are only 2-angled in three collections made by Goldman from Teopisca, Chiapas, in one made by Steyerl. in Huehuetenango, Guatemala, and in the holotype of *H. heterodoxus*. This character of flat stems is one of the supposed distinguishing features of *H. heterodoxus*, but as the stems of an average plant of *Helicocereus* have 3 to 5 angles it seems hardly significant that a 2-angled condition should occur in a few widely scattered plants. When the stems become 2-angled (i.e., flat) there is a consequent widening of the stem, as also occurs in *H. heterodoxus*. This seems to be a frequent tendency in the Cactaceae; for example, in *Deamia testudo* pendent stems have four equally wide angles, but if a side of such a stem later grows in contact with a substratum two of the angles become suppressed and the remaining two widen greatly.

In *Weberocereus tunilla* (Costa Rica) portions of the normally 4-angled stems often lose two of the angles and the others become up to four times the normal width. Thus there is little justification for recognizing *H. heterodoxus* on the basis of stem characters alone.

The type description of *H. heterodoxus* was based on dried material. The flowers of the holotype are imperfectly preserved, but they agree with this description and differ from descriptions of the other species in having short tepals and obtuse upper bracts. However, in flowers of several collections of *H. cinnabarinus* with trigonous stems the tepals are equally short and in others the bracts are sub-obtuse. Furthermore, flowers of the other flat-stemmed collections of *Helicocereus* have flowers with longer tepals and acute upper bracts and are thus typical of *H. cinnabarinus*. It seems evident that only one species is involved and that *H. heterodoxus* should be considered a synonym of *H. cinnabarinus*.

All the other flowering specimens of *Helicocereus* from Guatemala also seem referable to *H. cinnabarinus* and there is at least no evidence that the sterile ones do not belong here also. This species is known outside of Guatemala by a single collection made in El Salvador by Carlson and by several made in southern Chiapas by Goldman, Matuda and MacDougall. The Guatemalan specimens I have examined are cited below; the sterile ones are indicated by an asterisk.

San Marcos: Volcán Tacaná, Río Vega near San Rafael, *Steyermark* 36291 (holotype of *H. heterodoxus*) and 36262* (a paratype of *H. heterodoxus*); along Quebrada Canjulá, between Sibinal and Canjulá, *Steyermark* 36036; between Canjulá and La Unión Juárez, *Steyermark* 36385; Volcán Tajumulco, near San Sebastián, *Steyermark* 35709* and 35676*; between Todos Santos and Finca El Porvenir, *Steyermark* 36976; Barranco Eminencia, on the road between San Marcos and San Rafael Pie de la Cuesta, *Standley* 86297 and 86465. Huehuetenango: Sierra de los Cuchumatanes, above San Juan Ixcoy, *Steyermark* 50042* (specimens with flat stems as in the holotype of *H. heterodoxus*). Quezaltenango: Volcán Santa María, *Nelson* 3719; between Santa María de Jesús, Los Mojados, and the summit, *Steyermark* 34016* and 33960*; El Pocito, south of San Martín Chile Verde, *Standley* 84944*; Cerro Quemado, above Los Vahos, *Standley* 86089*; slopes of Volcán de Zunil, near Fuentes Georginas, *Standley* 86055*. Suchitepéquez: Volcán Santa Clara, between Finca El Naranjo and upper slopes, *Steyermark* 46763. Chimaltenango: Chichoy, *Shannon* 363; near Los Positos, above Las Calderas, *Standley* 80305 and 80306; Las Calderas, *Standley* 57830,

Johnston 1208 (the latter two are paratypes of *H. heterodoxus*). Guatemala: Slopes of Volcán de Pacaya, between San Francisco Sales and the base of the active cone, *Standley* 80782.* Jalapa: Volcán Jumay, north of Jalapa, *Steyermark* 32383.* Chiquimula: Near El Barriol, upper slopes of Montaña Tajurán, *Steyermark* 30806*. Zacapa: Between Santa Rosalía and upper slopes of Río Repollal, *Steyermark* 42431*; Sierra de las Minas, near Finca Planados, *Steyermark* 29960*; near Finca Alejandria, *Steyermark* 29841*; between Loma El Picacho and Cerro de Monos, *Steyermark* 42763*.

HYLOCEREUS

Following Britton and Rose's usage in *The Cactaceae*, I have maintained the genus *Hylocereus* in the *Flora of Guatemala*. There are two species reported for the country. One of these is the common *H. undatus* (Haworth) Britt. & Rose, which is widely distributed in Mexico, Central America and South America as well as in the West Indies. It was quite possibly widely distributed in pre-Columbian times by the Indians because of the large edible fruit and is now thoroughly naturalized over much of this area, if it is not native. The second species reported is *H. Ocamponis* (Salm-Dyck) Britt. & Rose, but the report is based on a single sterile specimen. The country of origin of this species is not known, but Mexico and Colombia are suggested. Figure 9.

Lemaireocereus Eichlamii Britt. & Rose, *Cactaceae* 2: 89, f. 132. 1921. *Cereus laevigatus* var. *guatemalensis* Eichlam in Weingart, *Monatsschr. Kakteenk.* 22: 182. 1912. *Cereus Eichlamii* Standl. in Yuncker, *Field Mus. Bot.* 9: 316. 1940. *Lemaireocereus longispinus* Britt. & Rose, l.c. f. 131. *Ritterocereus Eichlamii* Backeberg, *Cact. & Succ. Journ. Am.* 23: 121. 1951.

This is apparently the species which is used in the Motagua Valley in Guatemala to make hedges and enclosures of various sorts. Cacti used in this manner are a common sight in Mexico and are occasional in Central America. Their planting involves considerable labor but once the hedges are put into place they are good for many years. The branches are separated from wild plants and set side by side where they soon strike roots. The fruits from this species are edible. They ripen in March and April and at that season are to be found in some of the markets of Guatemala.

Backeberg's segregate genus *Ritterocereus* is hardly to be taken seriously and the specific combination to it is improperly made.

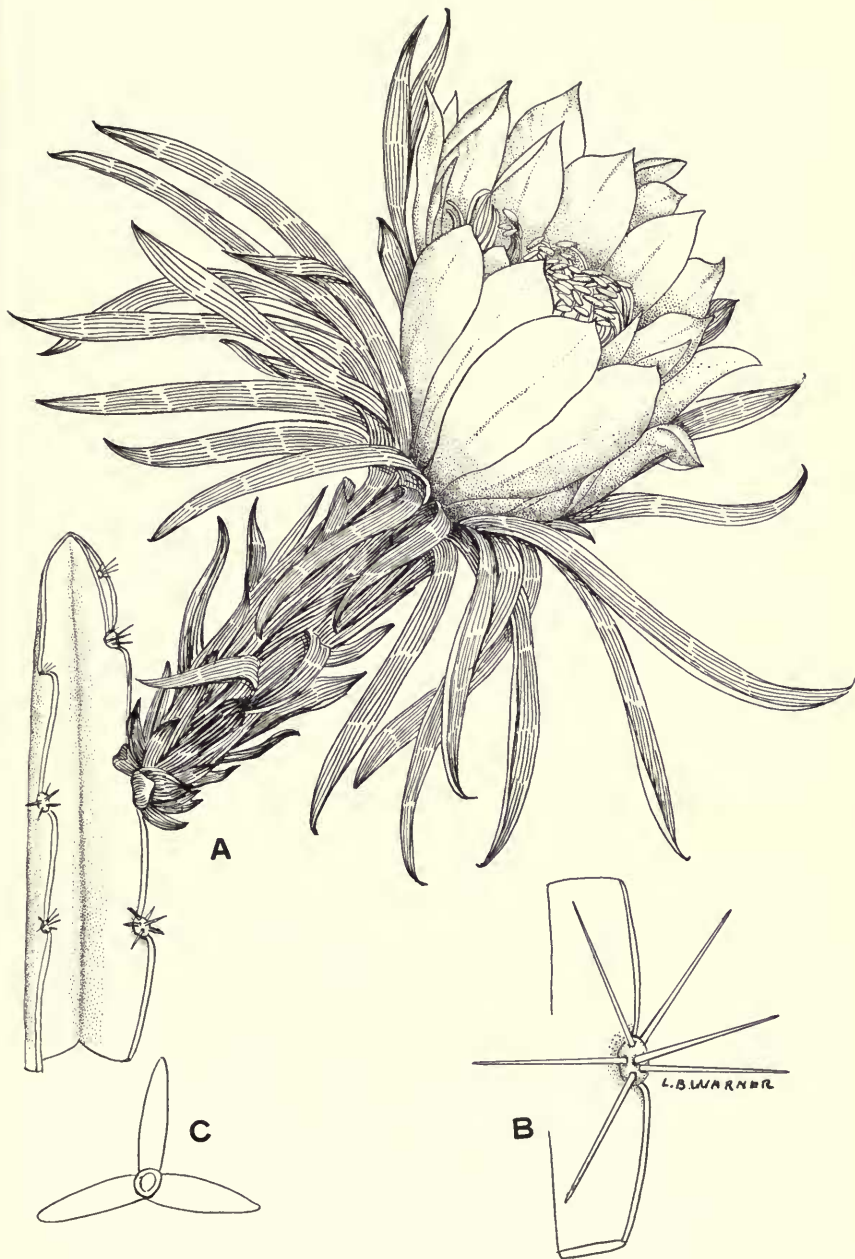


FIG. 9. *Hylocereus undatus*. A, Flower and tip of stem; about $\times \frac{1}{3}$. B, Areole; $\times 2$. C, Cross section of tip of stem; $\times \frac{1}{3}$.

There may be some question regarding the reduction of *L. longispinus*. It is known only as a sterile pot plant but the illustration seems to indicate that it is this species, and growths sometimes produce longer spines than other growths on the same plant.

Dr. Rose had apparently thought that some of the Guatemalan material belonged to *L. griseus* (Haw.) Britt. & Rose and it is still so annotated in the U. S. National Herbarium, after nearly forty years. However, the material was included under *L. Eichlamii* in the published work, which we shall follow.

Cereus Yunckeri Standl. in Yuncker, Field Mus. Bot. 9: 316, f. 7. 1940.

Guatemala: "Organo," stems up to 20 feet tall, 6 inches in diameter and dull green, in dry woods in shade, between Santa Ana Huista and woods of Rancho Lucas, Sierra de los Cuchumatanes, dept. Huehuetenango, alt. 800-900 m., August 26, 1942, *Steyermark* 51341.

This species is being included in the *Flora of Guatemala* under the genus *Lemaireocereus* without making the combination to that genus. I am quite sure that the sterile specimen cited is the same as the sterile type of *Cereus Yunckeri* and while I assume that the species may belong to the segregate *Lemaireocereus* I am not sure of it. It would probably have been placed in "*Pilosocereus*" by Backeberg.

COMBRETACEAE

TERMINALIA

The two common native species of *Terminalia* to be found in southern Mexico, Central America and Panama most probably have extended into our floristic area from South America; both species are widespread there and it is there that the genus has its greatest development in the New World. These species are *T. amazonia* (J. F. Gmel.) Exell and *T. oblonga* (R. & P.) Steud., both discussed below. *Terminalia nyssaefolia* Britton, described from Trinidad, is represented on the Caribbean coast of Guatemala by a single collection and could be an introduction there. *Terminalia Catappa* L., an Old World species, is widely cultivated as a shade tree in Central America. A sterile specimen from Guatemala indicates the possibility of still another species on the Caribbean coast.

Terminalia amazonia (J. F. Gmel.) Exell in Pulle, Fl. Surinam 3: 173. 1935. *Chuncoa amazonia* J. F. Gmel. in L. Syst. Nat. ed. 13.

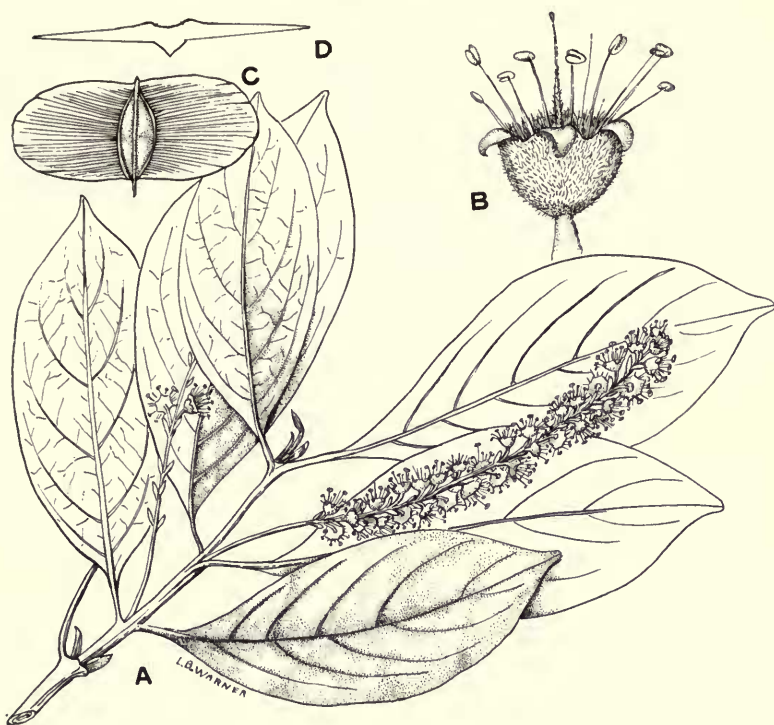


FIG. 10. *Terminalia oblonga*. A, Branch; $\times \frac{1}{2}$. B, Flower; $\times 3$. C, Fruit; $\times 1$. D, Fruit in cross section; $\times 1$.

2: 702. 1791. *Gimbernata amazonia* Ruiz & Pavón, Fl. Peruv. Prodr. 138. 1794. *T. obovata* Steud. Nom. Bot. 2: 668. 1841, non Cambess. 1829. *T. excelsa* Liebm. ex Hemsl. Biol. Centr. Am. Bot. 1: 402. 1880, nomen nudum. *T. Hayesii* Pittier, Contr. U. S. Nat. Herb. 18: 239. 1917.

One of the common trees along the Atlantic coast of Mexico, Central America and Panama, extending southward to Brazil and Peru. The fruit usually has five wings, of which two are larger than the others. The bark on the lower part of the trunk curls into thin sheets, much like that of the common wild Guava (*Psidium*). The common name, *guayabo*, refers to this similarity.

Terminalia oblonga (R. & P.) Steud. Nom. Bot. 2: 668. 1841. *Gimbernata oblonga* Ruiz & Pavón, Syst. Veg. 274. 1798. *Chuncoa oblonga* Pers. Syn. Pl. 1: 486. 1805. *T. chiriquensis* Pittier, Contr. U. S. Nat. Herb. 18: 238. 1917. Figure 10.

Common along the lowlands of both coasts from Guatemala to Panama and southward to Brazil and Peru. The fruit has only two wings, of about equal size. The mottled bark of the trunk reminds one of that of *Platanus*. The Central American material of this species has been most commonly determined as *T. lucida* Hoffm. ex Mart., a South American species to which it is related, but from which it is easily distinguishable by the fruits. The oldest name which I can find for this widespread species is that of Ruiz & Pavón. There is in our herbarium a Ruiz and Pavón specimen, in fruit, and a type photograph (CNHM Neg. 29282) which shows the species to be that found commonly from Guatemala to Panama and southward.

MELASTOMACEAE

Pterolepis fragilis L. Wms., sp. nov. Figure 11.

Planta gracilis herbacea, perpusilla, usque ad 15 cm. alta. Folia lineari-lanceolata vel lineari-elliptica, acuta, strigosa. Inflorescentia uni-pauciflora, cymosa vel subcymosa.

Small slender annual or possibly perennial plants with roots developed for wet situations, 2–15 cm. tall. Stems weak, obscurely angled or winged and more prominently strigose on these angles; leaves linear-lanceolate or linear-elliptic, acute, strigose on both surfaces, sometimes sparsely so, short-petiolate, 3–15 mm. long and 1–4 mm. broad, 3-nerved; inflorescence 1–few-flowered, cymose or subcymose, about as long as or longer than the subtending leaves or bracts; flowers at anthesis about 5 mm. long; hypanthium about 3 mm. long and 2–2.5 mm. broad, campanulate, inflated somewhat when in fruit, strigose with simple hairs or with forked ones especially at the sinuses of the calyx lobes; calyx lobes 4, about 2–2.5 mm. long and triangular-lanceolate or triangular-ovate, aristate-acuminate, pectinate-ciliate, glabrous outside, obscurely 3-nerved; petals 4, ovate or oval, fugaceous, pink, about 2.5 mm. long and 2 mm. broad, not ciliate; stamens 1–1.5 mm. long, connective below the thecae almost none; ovary ovoid, about 1.5 mm. long, the style shorter than the sepals; seeds about 0.35 mm. long, tuberculate.

Honduras: Flores rosadas, común, floresta de pino y liquidambar, entre Peña Blanca y Lo de Ponce (15 km. al sureste de Tegucigalpa), Dept. Morazán, alt. 1600 m., febrero 5, 1950, *Williams & Molina* 17138 (type in Chicago Natural History Museum); flowers white and pink, in pine barren about 2 miles northwest of Güinope, Dept. El Paraíso, alt. 1400 m., January 5, 1947, *Williams & Molina* 11522; flowers pink, open moist meadows in pine barren 2 km. southwest of Güinope, Dept. El Paraíso, alt. 1300 m., Nov. 21, 1948, *Williams & Molina* 14745; flores rosadas, colinas empantanadas, área de pino-roble entre Las Flores y San Juan del Rancho, Dept. Morazán, alt. 1500 m., noviembre 25, 1948, *Molina* 1741; petals pink, in shallow open bog, frequent, San Juan del Rancho, north of Cerro de Uyuca,

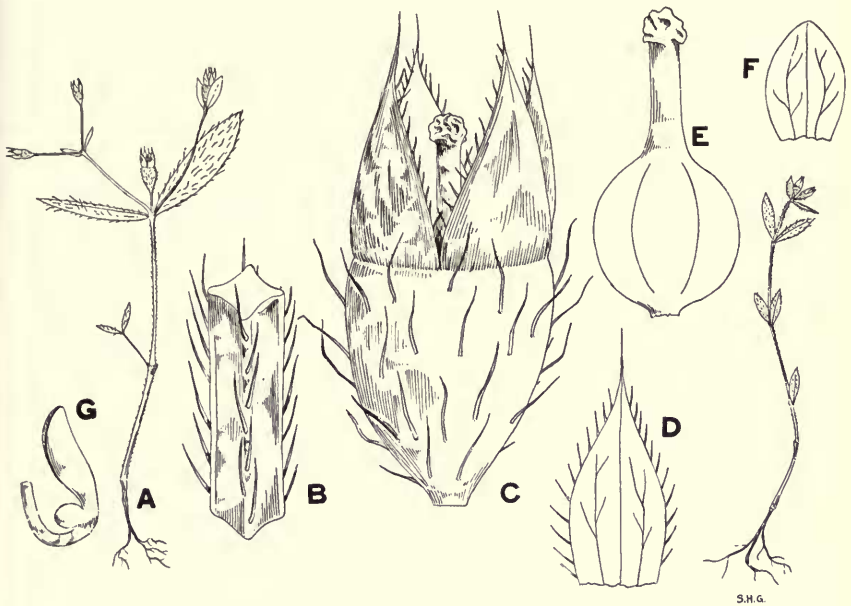


FIG. 11. *Pterolepis fragilis*. A, Plant; natural size. B, Stem enlarged to show angles and placement of pubescence. C, Hypanthium and calyx; $\times 10$. D, Sepal; $\times 10$. E, Ovary; $\times 12$. F, Petal; $\times 5$. G, Anther; $\times 12$.

pine-oak forest region, alt. about 1500 m., Nov.–Dec., 1948, *Standley* 15055; in dry sparse pine forest near Manzaragua road, 2 km. north-west of Güinope, Dept. El Paraíso, alt. 1390 m., Feb. 27, 1949, *Standley* 17267; dry pasture in vicinity of La Esperanza and Intibucá, Dept. Intibucá, alt. 1500–1600 m., Jan. 31–Feb. 2, 1950, *Standley* 26615 (EAP).

The specimens of this species have all been distributed as *Pterolepis stenophylla* Gleason, a species known from the lowlands of Mexico (Vera Cruz) and British Honduras. *Pterolepis fragilis* is related to that species but is a very much smaller, more delicate plant, known only from the Honduran highlands. *Pterolepis pumila*, the second species previously known from northern Central America, is also a much larger plant with relatively large, broad leaves and it has not been found higher than 1000 meters.

This species, along with several others usually thought of as bog plants, occurs most commonly in the open pine-oak savannas and is usually found toward the end of the rainy season when the savanna-like forest floor is a wet, spongy, bog-like area. In the dry season

the savanna is bone-dry and it is hard to imagine that plants like *Pterolepis* and *Utricularia* grow there.

COMPOSITAE

Archibaccharis lucentifolia L. Wms., sp. nov.

Frutex scandens; folia elliptica vel elliptico-lanceolata, acuta vel acuminata, integra vel mucronato-dentata, pubescens vel glabrescens; inflorescentia paniculata, pauci-50-capitata.

Scandent lianas; stems terete, fractiflex, obscurely puberulent, becoming glabrous; leaves 3-10 cm. long and 1.5-5 cm. broad, elliptic to elliptic-lanceolate, acute or acuminate, entire or mucronate-dentate, mostly with 3-4 lateral nerves on each side, obscurely puberulent below, becoming glabrous, glabrous above or puberulent along the base of the mid-nerve, somewhat coriaceous, shining above, especially when fresh; petioles 1 cm. long or less; inflorescence panicles of few-50 flower heads, axillary and terminal; heads mostly 5-6 mm. high, the pedicels slender, mostly 4-10 mm. long, puberulent, subtended by small lanceolate to linear bracteoles; staminate heads with about 15 flowers, ovaries much reduced; corolla about 5 mm. long and half tube and half limb, the anthers included; pistillate heads with 10-14 flowers, the outer flowers pistillate and fertile, the inner (2) larger, hermaphroditic and possibly sterile; pistillate flowers with tube about 3 mm. long, obscurely lobed, puberulent above, exceeded by the 25-30 rays of the pappus, and the styles exceeding the corolla about 2 mm.; hermaphroditic flowers with corolla divided into tube and 5-parted limb and with the lobes thickened along the margins, puberulent near the center, pappus rays (25-30) shorter than the corolla, the style clavate-thickened, probably sterile; pappus in all types of flowers barbelate; receptacle alveolate; achenes hispidulous; involucre in 3-5 series, the outer shorter and ovate to lanceolate, the inner linear-lanceolate, hispidulous and ciliate or obscurely lacerate apically, 1-nerved, the longest about 4 mm.

Guatemala: Cobán, 1350 m., Feb., 1907, *von Türckheim* II 1164 (US).

Honduras: Flowers white and purple, vine in cloud forest area in mountains above San Juancito, Dept. Morazán, alt. 1800 m., Feb. 20, 1948, *Williams & Molina* 13732; vine in trees in cloud forest in San Juancito mountains above San Juancito, Dept. Morazán, alt. 2000 m., *Williams & Molina* (F, type; US; G; EAP).

The corollas in the flowers observed are quite variable. Three forms occur, that of the staminate flowers (described from *Williams & Molina* 13732) and the two forms found in the pistillate-polygamous flower heads.

Archibaccharis lucentifolia is very closely allied to *A. torquis* Blake and in fact no. 13732 had been distributed as that species. Dr. S. F. Blake called my attention to the differences and had he lived possibly would have published this species. This species is easily dis-

tinguished superficially from *A. torquis* by characters of pubescence. The submembranaceous leaves of *A. torquis* are densely puberulent on both surfaces while the coriaceous leaves of *A. lucentifolia* are nearly glabrous. There are also differences in the flower heads and in the flowers.

The von Türkheim specimen cited was originally distributed as *Conyza asperifolia* Benth. & Hook.